Notes from Sturgeon Advisory Committee Meeting September 27, 2018

* The next meeting will be October 29th, 2018 back at the Portage County Library. The meeting will start at 1:00 pm and end at 4:00pm.

Action Items:

1) Ryan Koenigs will send out in-depth regulation information to committee as well as the hook and line harvest numbers from recent years.

2) Stephanie Shaw will upload photos of results from breakout sessions to the SharePoint drive.

3) **An action item for members is to brainstorm objectives and tactics for sections 3-5 to be discussed in similar breakout session format at the next meeting (Section 3: propagation and reintroduction; Section 4: regulations and harvest; Section 5: public outreach and participation).**

Ryan began the meeting. He started by welcoming everyone and reiterating the sturgeon advisory committee information that has been sent around to members and was discussed at the previous team meeting including: contact information, the website, the sturgeon plan email address, and the GovDelivery information system (information on how to sign up are listed at the bottom of this document). **When asked how many people have visited the website several people raised their hands in the affirmative.** Ryan then gave an overview of this meeting's agenda (PPT slide 2).

The group ran through introductions around the table. Some new members were present that had not attended the first meeting.

Ryan then gave an overview of Aug 27th meeting and debrief. **He asked the group for their feedback.**

Comments: David Zielke liked the breakout sessions as an important way to make the different opinions of the stakeholders heard. Hilbert Radtke liked the overview information presented and he was able to take lots of info back to fishermen in his area.

Ryan Koenigs gave an overview of the history of sturgeon regulations in the state (slide: H&L harvest and management action timeline). A more in depth regulation timeline document is available and will be sent out to all committee members by Ryan Koenigs after the meeting. Ryan ran through the compressed timeline and provided a handout of fish harvest numbers through time. Addressed the increasing harvest in the 1980s through the early 2000s and explained that the even/odd year spikes in harvest in the early 2000s were due to the alternating 50" and 70" regulation at the time. He noted that the handout provided includes inland waters and that regulations on border waterbodies have differed. **Question from Bryan Klawitter: Were fish harvested in Minnesota border waters included in the harvest summary since fish caught in Minnesota waters are not required to be registered in Wisconsin? Response (Joseph Gerbyshak): All sturgeon harvested on the St. Croix River are required to be registered in the state of Wisconsin so they are included in these numbers.**

Question to Josh Schloesser by Dave Hitchcock about the harvest numbers on Lake Superior. Response Josh Schloesser: USFWS doesn't register fish. The Lake Superior) harvest was 16 fish in 2016.

Ryan Koenigs provided a H&L harvest overview in recent years 2006-2017. Ryan will send this around to the group as well.

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Next we moved on to district specific updates on regulations, harvest and the sturgeon fisheries in general.

Jeff Scheirer – North District
Upper Chippewa basin: Jeff noted that the biggest issue is the number of dams that serve as obstacles to movement in the area. From the headwaters at the Turtle Flambeau Flowage to Eau Claire there are 16 dams restricting movement. The WDNR and partners have been able to create fish passage structures to help mitigate these issues in some locations. For example, a nature-like fishway was constructed on the East Fork Chippewa. A similar project is proposed for the South Fork Flambeau to overcome that dam. A Change in minimum length limit from 50" to 60" in 2007 dropped harvest from about 70 fish per season to about a 7-8 fish per season which was the intent of the regulation change.

Yellow Lake/River harvest has a dedicated group of anglers that harvest relatively few fish and tend to practice primarily catch and release. There is also tribal harvest in this area that takes on average 4 adults/yr. There is an egg take program in place for culture of sturgeon to be stocked in other waters in the area.

Lake Superior has seen increase in lake sturgeon abundance since the increase in size limit to 50" in 1992. An advisory question was presented to the Wisconsin Conservation Congress spring hearing in 2018 to increase the size limit to 60". That advisory question was supported and will be asked at the 2019 WCC spring hearing as a rule proposal question. If supported, the rule would go into effect for the 2020 fishing season.

Nate Nye – South District
Lake Wisconsin – The Kilbourn dam is the primary spawning area for Lake Wisconsin. It is a naturally reproducing and fully self-sustaining population. This population has been stable for 35-40 yrs. It has an open H&L season and a 60" minimum length limit. There has been a trend of decreasing harvest since the regulation change. In the 1980s the lake sturgeon fishery was harvest oriented. At present the catch-and-release behavior of anglers has been increasing. Since the mid-2000s harvest has been relatively low and steady. There has not been a difference in sturgeon abundance or angler effort just a shift towards catch-and-release. Lake Wisconsin is the brood source for middle Wisconsin River and other Mississippi River recovery programs.

Baraboo River – This area is a rehabilitation project. The last of 13 dams was removed in 2001 and fish stocking began in 2010. They stock 500 yearlings annually. Habitat enhancement projects have been done by the city of Baraboo.

Lower Wisconsin River – Prairie du Sac dam is a sampling site for adult sturgeon in the fall of each year but natural reproduction has yet to be documented and is a research need. Harvest in this area has been relatively low in recent years since the regulation change from the 50"/70" alternating regulation to the 60" minimum length limit in 2007. The relatively high 10% exploitation year observed was likely related to sampling issues and thus is assumed to be a lower exploitation rate than estimated.

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There is an issue of misidentification by anglers of juvenile lake sturgeon being misidentified as shovelnose. Nate gave an overview of the physical differences between the species. He noted that there are no shovelnose above the Prairie du Sac dam. Shovelnose are self-sustaining in lower WI river and fishery exists in that area.

Madison Lakes – There are remnant lake sturgeon populations in Lake Monona and Mendota. Lake Sturgeon are protected in the Madison lakes with no open fishing season.
Question Rob Elliot: Is the production of shovelnose sufficient to maintain the fishery?
Response Nate: Yes, it is believed that the population is at sufficient levels to remain sustainable with the current fishing pressure.
Comment Tim Larson: The elimination of the last 2 weeks of the season has greatly decreased the fishing effort in this area.
Comment Bryan Klawitter: The Mississippi shovelnose season is open all year and the limit is 10 fish. These fish are often by-catch as people are targeting lake sturgeon. Most people in the St. Croix River area practice catch-and-release so they asked the Minnesota DNR to restore the last 2 weeks of the season (which was implemented).

Mike Donofrio – East District
Green Bay and its tributaries, primarily the Menominee River, Peshtigo, Oconto and Fox River.

Overview of the management issues in the area include lake sturgeon recruitment in Green Bay, evaluating the restoration of stocks, hook-and-line mortality unknowns, lower Menominee River fish passage issues, lack of knowledge on the spawning activity in the lower rivers, habitat management (Peshtigo rip-rap project), and a mention that law enforcement is currently investigating illegal harvest on the Menominee River.
Mike presented slides giving an overview of the known and primary spawning populations (Fox, Oconto, Peshtigo, Menominee) and historic tributary populations as well as the genetic distribution of lake sturgeon in Green Bay and how they relate to these known spawning populations. Lake sturgeon from all known spawning populations intermingle. Primarily adults spawn in their river of origin but the rivers get a mixture of lake sturgeon from multiple spawning populations.

Menominee River – The Menominee River has 4 sections. All but Sturgeon Falls section are naturally reproducing. Sturgeon Falls has been stocked since 1982. Population assessments for the sections of the river are done primarily with electrofishing. Sturgeon Falls, the upper most population, was isolated by a dam in 1970s. This population is currently dominated by smaller stocked fish. They do see some adults but these make up a relatively small proportion of the population. White Rapids and Grand Rapids have more diverse size structure with more adult fish, and an average size of about 33 inches in both populations. Population estimates for White Rapids = 4,082 and Grand Rapids = 3,922. There is lots of catch-and-release fishing during the open season in these areas.

The main tributary populations of the lower rivers were open to harvest until 1999 but only one fish has been registered before then. There has been hook-and-line harvest on the Menominee since 1946. Mandatory registration of lake sturgeon began in 1983. Harvest followed similar patterns to the rest of the state and was relatively high from the 1980s to the early 2000s. The more conservative 60"

minimum length limit was put in place to decrease harvest. Waters below the Menominee dam were closed to harvest due to concerns of the impacts on smaller mixed populations.

Joseph Gerbyshak – West District
Lower Chippewa River – There is a catch-and-release season on the boarder waters of WI-MN (Red Wing dam is the breakpoint for differences in season length). A harvest season occurs during the month of September on the St. Croix River with a 60" size limit and 1 fish bag.
The Mississippi River shovelnose fishery downstream of the Red Wing Dam includes 10 fish bag and is open year round.

Inland waters including the Red Cedar River, the Lower Black River, and the Middle Wisconsin have no open season. The Lower Black River is in rehabilitation status and is set to be stocked this year. The Middle Wisconsin is also in rehabilitation mode.

The Chippewa River has several dams. There is a harvest season during the month of September. All sturgeon harvested during the hook-and-line season must be registered in person. The harvest season (month of September) mimics what has been observed on other populations in the state. There was high harvest in the 1980s (45" size limit) through the early 2000s (50" size limit). A 60" size limit was put in place in 2007 and harvest dropped.

The Chippewa River harvest is approximately 10 fish per year with 18 fish harvested in 2017.

Gillnetting surveys are used for pre-spawn assessment. Dip netting surveys are done at the Jim falls dam on the Chippewa River during active spawning. Gillnetting surveys are conducted post-spawn. A hook-and-line survey has begun to try to assess juvenile lake sturgeon (relative abundance index fish per rod hour).

Movement and population range overview: Joseph gave an overview of a few different fish that have been tagged and re-located over time. From these observed movements it is believed that fish are likely moving over the dams at high water events (for example the fish sampled in the Chippewa River and then the Red Cedar River). One fish moved from the Chippewa River down to the Mississippi River. It seems there is a lot of movement going on between the Mississippi River and within these tributaries. The genetic structure was similar among the tributaries of the Mississippi river suggesting that these Mississippi River related populations have a lot of intermingling or could be considered one large population.

Question Josh Schloesser: What kind of info is collected when an angler brings in a fish in to be registered?
Response Joseph Gerbyshak: Registration cooperators are given PIT tag readers with some training, but there is some assumption that there may be some user error there. Length and weight data are also collected.
Comment Jeff Scheirer: The North District registration stations also get readers. It is unclear if the Lake Superior stations have readers (this is Brad Ray's area and he is not present).

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Question Dave Zielke: Where on the fish are the PIT tags injected?
Response Joseph Gerbyshak: In his area they are injected under the skull plate. PIT tags used to be injected in the 'armpit' area but that has changed due to assumed tag loss and tag migration.
Comment Ryan Koenigs: The PIT tag location has been standardized around state to avoid potential ingestion issues when fish are harvested. Adult lake sturgeon are tagged underneath the skull, while juvenile stocked fish are tagged under the 3rd scute in the cartilage area.
Comment Pat Short: The Mississippi shovelnose are tagged in the cheek area to avoid ingestion. There has been some observational studies to determine tag loss from that location.

Comment Joseph Gerbyshak: There are other tags that are used by Wisconsin and other states which are more highly visible for anglers as opposed to the PIT tag.

Comment Jen Reitz: Is there a minimum length limit on the Mississippi River? (in regards to the fish that were harvested in Joseph's presentation of fish movement.)
Response Joseph Gerbyshak: Fish 0462 was not PIT tagged but ID'd from another tag visible to the angler.

Question Jim Heiar: Is there anything that indicates the length, weight or growth differences between northern and southern Wisconsin populations? (Question in regards to the weight and length differences observed in Joseph's tagged fish over time.)
Response Ryan Koenigs: Variability in weight within recapture histories can be heavily influenced by reproductive stage of the fish. A high proportion of weight in females is due to egg mass and then a subsequent drop in weight due to egg loss after spawning. Resource availability will also drive growth and condition.

District overviews were completed and Ryan Koenigs presented the vision statement from the 2000 plan. He gave the main points that were brought about in the first breakout session from the last meeting (i.e., include all sturgeon species; habitat; science-based management concept; promote sturgeon; terms stakeholder versus users). **Ryan then presented the Vision Statement decided on by the team for comment by the advisory committee.**

"Maintain, protect, restore, and promote sturgeon populations and their habitats in Wisconsin using science-based research and balanced management for the benefit of the resource and all stakeholders."

The advisory committee feedback was all positive. It was decided to keep this vision statement as is to include in the new plan.

With the approval of the vision statement Ryan gave a recap of Breakout Session #2 from the last meeting. The action item for the Sturgeon Team between meetings was to go through the important topics listed by the advisory committee and determine similarities, clusters, etc. and to identify important sections to be included in the new plan. The team clustered the 22 topics into 7 different sections. Ryan went through the connections of each topic from the committee and how they were grouped into the primary sections. The sections for the new plan include:

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Section 1: population assessment and life history monitoring
Section 2: habitat protection and enhancement
Section 3: propagation and reintroduction
Section 4: regulations and harvest
Section 5: public outreach and participation
Section 6: emerging threats
Section 7: commercialization and scientific use

The Sturgeon Teams plan moving forward is to tackle each of these sections one by one during Advisory Committee meetings. Each topic will be discussed in smaller groups to put together a framework of objectives under each section and tactics to address each objective. Ryan mentioned that this is not an exhaustive list and things can be added down the road as needed.

Question Josh Schloesser: Does the team plan to follow a similar format to the last plan?
Response Ryan Koenigs: Our plan is to have objectives and then tactics to meet those objectives. The plan for structure is to have specific tactics to address the objectives rather than just the outline format of the 2000 plan.

Break (15 min)

Breakout session #1: Population Assessment and Life History Monitoring
Ryan Koenigs presented the three previous objectives from the 2000 Management Plan that were listed under a similar topic. He described the goal of the breakout sessions. 1) We want to determine if these previous objectives are still applicable, 2) list any new objectives that need to be addressed, and 3) add specific tactics that can used to address each objective.

Group1:

- The necessity of movement data.
    - Visible tags could be implemented so that anglers can report data and/or an online tag reporting system.
- Funding limitations for sturgeon surveys and monitoring.
    - A Sturgeon Stamp could be developed for catch-and-release angling
- There is a lack of information on juvenile sturgeon that should be addressed. (There are also difficulties in sampling tactics and other issues that need to be considered.)
- Continue core sturgeon surveys

Group 2:

- Continue current population assessments
    - Use volunteer angler diaries to supplement assessments
    - Expand the use of tagging information and access to an online database
    - Identify population trends (increasing, declining or stable)
- Inventory sturgeon distribution
    - Improve sturgeon distribution maps (Surface Water Data Viewer a.k.a. SWIMS)

    - Identify potential sturgeon waters and increase surveys
    - Literature/paper review of sturgeon distribution
- Create a statewide report to synthesize sturgeon biology and demographics
- Identify life history data gaps – (what's not known and how to get there)
    - Design new surveys to collect the data needed to fill the gaps
- Develop standardized population assessment methods
    - Create approved population estimation methods for large impoundments
    - Improve mark-recapture techniques
    - Increase the use of acoustic tags (and receiver networks)

Group 3:

- Continue to assess sturgeon populations using established and standardized methods
    - Adults/spawning, early life, mid-life (juvenile)
    - Identify minimum standard surveys needed: what is needed and how often
    - Adapt assessment methods to address information gaps and/or remain current with scientific literature to be able to develop new surveys/methods as needed
    - Facilitate communication within and among agencies on survey methodology
        - Standardization and comparability
- Conduct life history research and assessments
- Create one centralized database to house all sturgeon data
- Utilize public participants as a method of collecting population data
    - Recreational and commercial angling partners/volunteers
    - Sturgeon specific creel surveys of catch-and-release anglers
    - Volunteers and angler diaries
    - Create an app (similar to the WDNR Hunt Wild app) that can be used to report catch information
    - Leverage data collection methods/technology for other species to collect data on sturgeon populations
    - Work with external partners to maximize data collection
        - For example, hydro operators fish surveys, intake clean out survey data, etc.

Breakout Session #2: Section 2 – Habitat protection and enhancement

Group 1:

- Identify fish passage on populations that are limited by fragmentation and not constrained by exotics
- Maintain and enhance sturgeon habitat
- Identify factors that influence the spawning run
- Evaluate diet and forage base and how these relate to habitat
- Identify shovelnose sturgeon habitat requirements
- Collect flow data needed for life history needs
- Evaluate habitat improvement projects
- Evaluate water quality impacts on sturgeon
- Quantify habitat and model habitat needs for carrying capacity for different life stages

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- Locate, map and protect current habitat and monitor habitat quality

Group 2:

- Identify critical habitat
    - Identify habitat bottlenecks
    - GIs/mapping technologies – known; so compile maps on a watershed level
    - Learn about shovelnose habitat requirements
    - Use side scan sonar to identify habitat
    - Conduct various habitat surveys across all life stages
- Identify barriers affecting sturgeon populations
    - Look for opportunities to improve connectivity
    - Work with dam owners to maintain appropriate water levels – discharge
    - Ensure effective participation in FERC re-licensing
- Enhance habitat for all life stages
    - Improve habitat below dams – rocky habitat availability
    - Encourage riparian land use BMPs
        - Promote erosion reduction

Group 3:

- Quantify and monitor critical sturgeon habitat (physical, chemical and biological) for all sturgeon species throughout their range in Wisconsin
    - Mapping
    - Understanding interactions between sturgeon and other abiotic factors
    - Monitor/assess periodically
    - Work to expand our knowledge of early life history habitat and needs
- Identify barriers and other factors that restrict sturgeon movement/habitat use
    - Dams, point source pollution, invasive species, physical habitat
    - Watershed impacts – nutrient loading and sedimentation
    - Partner with dam operators to facilitate passage or removal of barriers
    - Partner with riparians to enhance or protect critical habitat
- Address barriers or develop strategies to mitigate negative impacts of barriers with the goal of restoring connectivity
- Enhance habitat strategically to maximize benefit to the sturgeon population and increase visibility/experience for the public.
    - (Physical, chemical-water quality, biological- fish community and invasives)
- Evaluate habitat improvements to determine success/failure and inform future habitat enhancement projects
    - Research and monitoring
    - Adapt and implement modified practices

To finish the meeting Ryan Koenigs gave an overview of the agenda plans for the next meeting on Oct. 29th. **An action item for members is to brainstorm objectives and tactics for sections 3-5 (Section 3: propagation and reintroduction; Section 4: regulations and harvest; Section 5: public outreach and participation).**

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The Next meeting speaking time will include less 'classroom' time and more time for breakout sessions and discussion. We will have presentations by Wes Larson (UWSP Coop Unit) on genetics and stock structure and Stephanie Shaw will give an overview of sturgeon exploitation in Wisconsin.

How to sign up for GovDelivery:

1) Click on the link to go to the Sturgeon Management Plan webpage: https://dnr.wi.gov/topic/Fishing/sturgeon/SturgeonManagementPlan.html
2) Click on the red envelope on the right hand side to subscribe to the Gov Delivery mailing list.